

**ABSTRACT**

A process for treating a copper or copper alloy substrate surface with a composition and corrosion inhibitor solution to minimize defect formation and surface corrosion, the method including applying a composition including one or more chelating agents, a pH adjusting agent to produce a pH between about 3 and about 11, and deionized water, and then applying a corrosion inhibitor solution. The composition may further comprise a reducing agent and/or corrosion inhibitor. The method may further comprise applying the corrosion inhibitor solution prior to treating the substrate surface with the composition.